

## CLAIMS

We claim:

- Sub 1A/
1. An apparatus for interfacing customer premise equipment with a telephone network, comprising:
    - an interface coupled to the telephone network, the interface comprising a current source, wherein the current source provides a constant current to the customer premise equipment when a line impedance of the telephone network varies in a predetermined range when the customer premise equipment is off-hook; and
    - a tip conductor and a ring conductor, both the tip line and the ring conductors are coupled to the interface.
  2. The apparatus of claim 1, wherein the line impedance of the telephone network is defined by an EIA/TIA-496-A interface standard.
  3. The apparatus of claim 1, wherein the telephone network is a Plain Old Telephone System (POTS) network.
  4. The apparatus of claim 1, wherein the current source includes a FET.
  5. The apparatus of claim 1, wherein the constant current is approximately 30mA.
  6. The apparatus of claim 1, wherein the telephone network is a PBX system.
  7. The apparatus of claim 1, further comprising an off-hook relay.
  8. The apparatus of claim 1, wherein the current source includes a low pass filter.
  9. An apparatus coupled to a telephone network, comprising:
    - a receiver;
    - an interface coupled to the receiver and the telephone network;
    - the interface comprising a current source, wherein the current source provides a constant current to the receiver when a line impedance of the telephone network

6 varies in a predetermining range when the customer premise equipment is off-hook;  
7 and

8 a tip conductor and a ring conductor; both the tip conductor and the ring  
9 conductor are coupled to the interface.

1 10. The apparatus of claim 9, wherein the current source includes a FET.

1 11. The apparatus of claim 9, wherein the telephone network is a Plain Old  
2 Telephone Service network.

1 12. The apparatus of claim 9, wherein the line impedance of the telephone network  
2 is defined by an EIA/TIA-496-A interface standard.

1 13. The apparatus of claim 9, further comprising a coder/decoder.

1 14. The apparatus of claim 9, wherein the receiver is a hybrid receiver.

1 15. The apparatus of claim 9, wherein the telephone network is a PBX system.

1 16. The apparatus of claim 9, wherein the constant current is approximately 30mA.

1 17. A method of providing a constant current to an apparatus coupled to a  
2 telephone network, comprising the steps of:

3 connecting the apparatus to a tip and a ring conductor;

4 taking the apparatus off-hook; and

5 sinking a constant DC bias current while off-hook, where the DC bias current  
6 is independent of a load seen on the tip and the ring conductors.

1 18. The method of claim 17, wherein the telephone network is a Plain Old  
2 Telephone Service (POTS) network.

1 19. The method of claim 17, wherein the telephone network is a PBX System.

1 20. The method of claim 17, wherein the DC bias current is approximately 30mA.